South Dakota Communicates

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"Hello . . . HELLO? Speak up, I can barely hear you. We got in about a half-hour ago." Hearing that static-filled voice brought a sigh of relief. They had made it back safely. Being connected meant sleeping easy instead of worrying all night long.

"It was a ground-up system from magneto to open wire carrier to underground carrier, eight-party system to one-party system. The growth of that thing [the phone system] is unreal."

Leroy D. Schecher,retired
WRCTC manager, 2008

South Dakotans know the value of the telephone. Since the 1870s, phones have connected isolated people and communities. Thousands of miles of wire have crossed South Dakota, first on overhead poles and later buried underground. Switchboard operators and party lines are fond memories. Now, cell towers dot the landscape. Modern service keeps everyone connected for business, safety, and pleasure. The instrument has changed over the years, but South Dakotans still know the value of the telephone.

Over the Wire

The Telegraph

Before telephones, telegraphs kept people connected. Invented in 1838 by Samuel F.B. Morse, the telegraph sent electric pulses through a wire. Pulse combinations – dots and dashes – stood for each letter. Operators translated the code back into a readable message.

Operators reported progress on a military road between Sioux City and Fort Randall on this telegraph around 1860. It may be Dakota Territory's first telegraph.

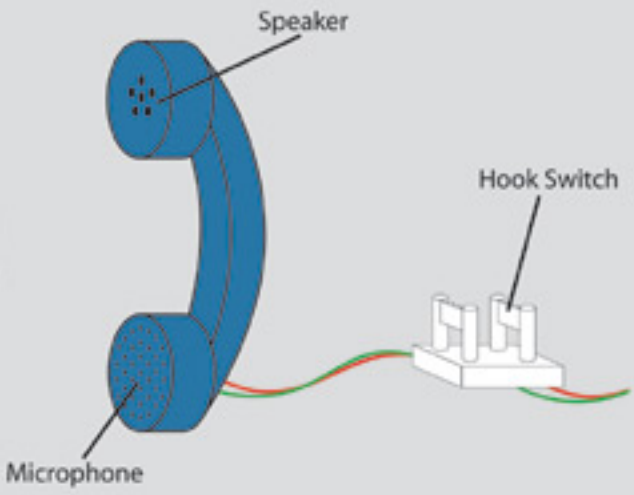
This morning A. Sherin received a letter from his son, manager of the Cadet band, which stated as follows: "We arrived here Sunday at 2 p.m. and were taken to the Broadway school house where we are making our head-quarters. We have a good place to sleep and plenty to eat and are well taken care of. We have played just once since coming here and the boys never did better."

Before the telephone, people wrote letters. It could take months for a message to reach its destination. Local newspapers could print personal messages if privacy did not matter.

Jefferson post office, 1915

Bell's Telephone

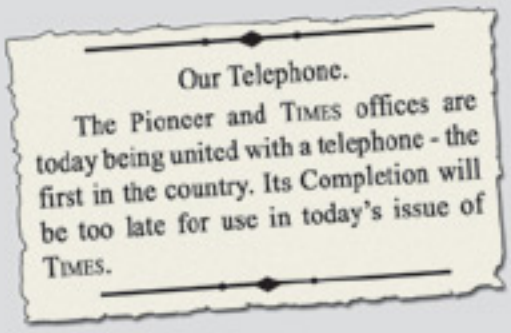
Alexander Graham Bell worked to improve the telegraph and send more than one message at a time. In 1876, he sent a human voice over an electric telegraph wire. Bell quickly patented this invention and formed the Bell Telephone Company. First considered novelties, telephones quickly proved their worth.



Talking "over a wire" connected people in a way never before imagined. A microphone, a speaker, and a switch make a working telephone.

Getting Connected

Talking over a wire – crazy! Bell's foolish toy might suit Connecticut, but Dakota? No, better leave well enough alone. Until, that bad night when the doctor had to be reached. Hearing from the folks back east between letters gave peace of mind. Getting that replacement mower part took no time when the store called Minneapolis directly. Telephones sure come in handy.


Our Telephone.

The Pioneer and TIMES offices are today being united with a telephone - the first in the country. Its Completion will be too late for use in today's issue of TIMES.

Deadwood's 1878 telephone exchange was the first in South Dakota.

In 1890, Harper's Weekly showed overhead wires following the rails across the Dakota landscape.

Telephones were good for business. Telephone companies promised increased sales if storekeepers had telephone service. Distance and bad weather no longer kept people from shopping.

The Gray Investment Company in Highmore used a wall phone to connect with customers, ca. 1910.

Lines run past the Dakota Granite Company in Milbank, 1958.

The first coast-to-coast call went from New York to San Francisco in 1915. Operators used a calculograph like this one to time long-distance calls in the 1940s.

Getting Connected

South Dakota set up a Board of Telephone Commissioners to regulate telephone rates in 1907. In 1909, telephone regulation went to the Board of Railroad Commissioners. That board became the Public Utilities Commission in 1939. Companies could legally use public streets, alleys and highways for poles and wires.

City officials had to approve before lines could go up. Highmore, ca. 1895.

Phone lines often followed railroad tracks. Lines running across Walworth County in 1942.

In early years, telephone poles were reused as they rotted off. Over time, poles got shorter and shorter. Old-timers joked that when the wire on the stubby poles came down, ranchers would have to build their own fences.

Rural Telephone Service

The Rural Electrification Administration (REA) brought phone service to farms starting in 1949. One REA loan paid for 14,000 poles and over 2,000 miles of line in southeast South Dakota in 1952.

A utility pole goes up, ca. 1910. Telephone companies paid pole rent to run phone wires on electric coop poles.

"The farmers took it upon themselves to help build this line. They got together and they bought the poles and they put up the wire themselves. My dad spent several days with guys helping set poles. When the line went by your land, you went out and helped."

Harry Thomas, Sully Buttes Telephone Cooperative director, 2001

Fierce Competitors

The American Telephone and Telegraph Company (AT&T) split the nation into specific territories for phone service. AT&T's subsidiary, Northwestern Bell, served South Dakota. Over 400 small telephone companies set up business in the state when Bell's phone patents expired in 1894.

Competition raged between Bell and the independents. The small companies worked to serve towns overlooked by Bell. The Farmers and Merchants Telephone Co. served the Waubay area.

Wessington Springs telephone switchboard operators, ca. 1925.

Independents brought phones to many towns, but the business proved no easy road. Local investors often lost money. Independents had to connect to Bell lines for long-distance service. Most of South Dakota's independent phone companies were bought out by other independents or by Bell.

Bell guarded its telephone patents fiercely and took many independent companies to court over the illegal use of their technology. Bell did not control all phone technology. The Dakota Emner Telephone Co. in Aberdeen used Reis transmitters in the 1890s.

Independent Phone Service

Small towns and rural areas often had their first telephone service through small companies. Some were family-owned businesses; others were cooperatives or part of a city's municipal utilities.

The Armour Telephone Co., ca. 1910.

Dakota Central Telephone Company, Aberdeen

German immigrant J.L.W. Zietlow started the Dakota Emner Telephone Company – later Dakota Central – in 1886 in Aberdeen. Zietlow improved on existing telephones. He avoided Bell lawsuits by using and improving the Reis telephone, a Bell competitor. Bell tried to get Zietlow's stockholders to abandon the company but failed and Dakota Central flourished. By 1887, Aberdeen had more phones for a city its size than any other place in the world.

J.L.W. Zietlow

Dakota Central offered direct dial phones before many other companies. Lines went underground in 1909, another first. Dakota Central's office on Aberdeen's Main Street, ca. 1915.

Miss Grace Carter worked as a switchboard operator for Dakota Central. She posed in the 1940s at the board she operated as a young woman.

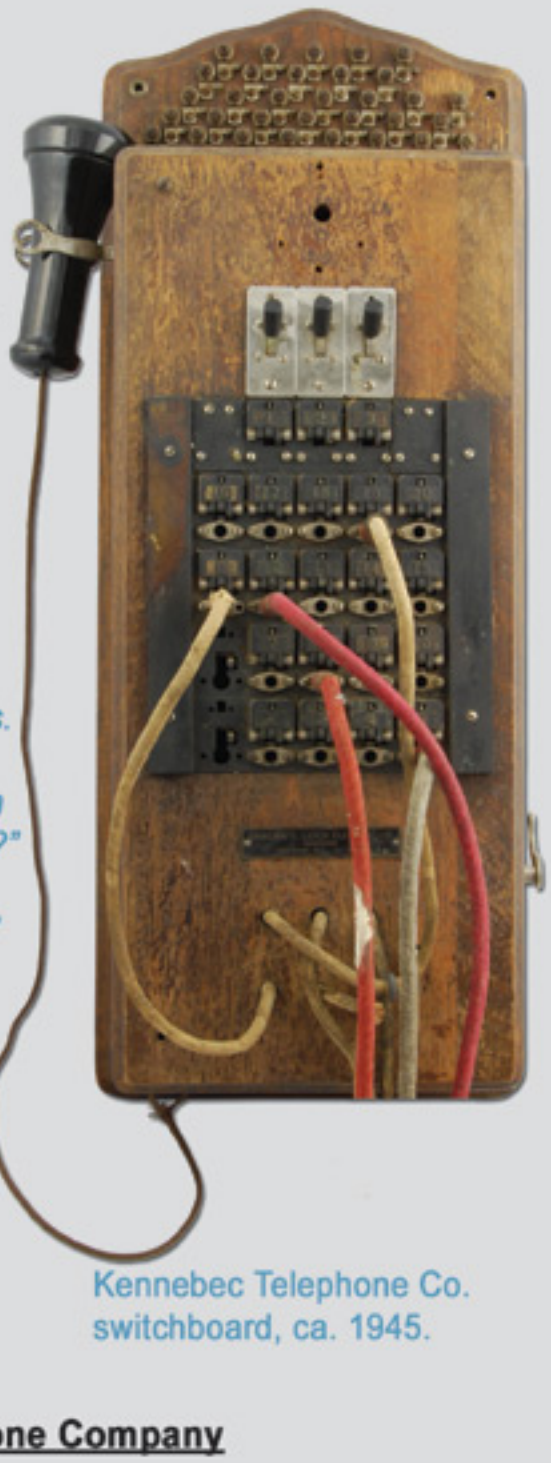
Independent Phone Service

Kennebec Telephone Company

Local homesteaders ran phone lines in the Kennebec area in 1908. John F. Spotts started the Kennebec Telephone Company in 1918. The company went broke, but restarted in the 1930s. Lloyd and Delores Johnstone bought the company in 1952 with money from the sale of 35 cattle. Lloyd's communications training from the army and Delores's earlier work as a switchboard operator helped the business prosper. Delores sold the company in 1998.

Kennebec Telephone Co. crank telephone, ca. 1945.

Operators fielded a wide range of customer questions. Delores Johnstone recalled being asked "Have you seen my husband on Main Street?" and "What time does the train come in with the mail?"



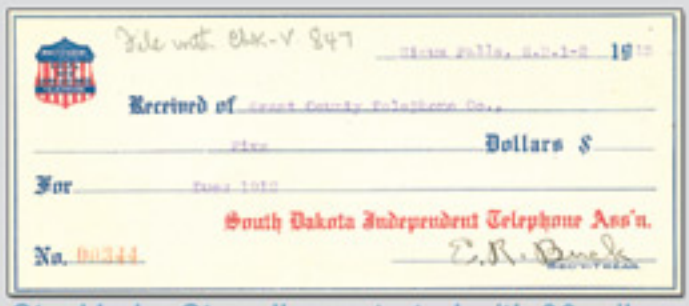
Kennebec Telephone Co. switchboard, ca. 1945.

In 1952, Kennebec Telephone Co. service cost $2.00 per month for town customers and 50 cents for farm lines.

Stockholm-Strandburg Telephone Company

The Stockholm-Strandburg Telephone Company started in 1914 by purchasing the Grant County Telephone Company. They served Stockholm, Strandburg, and the surrounding farm area. Harold and Marjorie Nowick bought the company in 1966. They moved the switchboard into their living room and Marjorie ran the switchboard during the day – in a house with four small children. The Nowicks ran the company until 2006.

When customers came to the house to use the phone, Marjorie set up her clothes closet as a "phone booth."



Stockholm-Strandburg started with 30 miles of line and 27 phones bought from the Grant County Telephone Co. for $1,000.

Independent Phone Service

Golden West Telecommunications

The Golden West Telephone Company started in 1916, serving western South Dakota. The company went out of business in 1937 after a sleet storm destroyed their lines. In 1952, the West River Electric Association started the Golden West Telephone Cooperative. The two companies were a joint cooperative until 1964, when Golden West became a separate cooperative. The company was the largest independent phone company in South Dakota in 2008.

Golden West buries lines in the Badlands, ca. 1970. Burying lines became standard practice in the 1960s. Wind, rain, and snow no longer interrupted phone service.

Golden West work crew Jerry Wood, Josh Fish, Larry Larson, Travis Wager, and Craig Reagle, 2007.

Golden West splicing cable, ca. 1970.

"We plowed in cable – miles and miles, probably two, three, four thousand miles of cable."

Don Paulsen, retired Golden West manager, 2008

West River Cooperative Telephone Company, Bison

Getting telephone and electric service to sparsely populated northwestern South Dakota required teamwork. The Grand Electric Cooperative and West River Cooperative Telephone Company (WRCTC) joined forces in 1953. They built a telephone system for Bison in 1957 and eventually served Sorum, Buffalo, Camp Crook, Lemmon, Newell, and Nisland. In 2008, they were the only joint electric-telephone cooperative left in the state.

Working for an electric-telephone coop paid off for Grand River Electric linesmen one winter night. They carried clip-on phones to check phone lines. Stalled in a remote area, one man climbed up and clipped onto the overhead lines, getting the operator. He requested a collect call. All went well until she asked for his phone number. Hanging on a utility pole, he had no number to give. Convincing her the call was real took some doing. "It's hard to get on your knees when you're hanging on a pole . . . but he finally talked her into it. We rescued them."

Leroy Schecher, retired WRCTC manager, 2008

At the Switchboard

She was still shaking. The switchboard fire was out, but the smell of smoke hung heavy. Lightning had struck miles away and traveled along the line until it exploded through the board. Lucky she had stepped away for a moment. Life as an operator was certainly not dull. Last spring's flood had been a real test – her feet still twitched when she thought about the water creeping in as she frantically rang customers. She wouldn't leave until everyone had been warned to get to higher ground. Fortunately, the only casualty had been her second-best shoes.

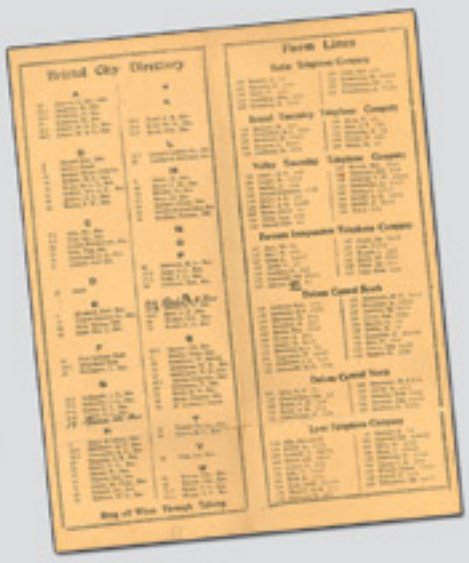
On a switchboard, each phone had its own jack. One long ring alerted the operator who plugged into the caller's jack. The caller told the operator whom they were calling and the operator sent a ring signal. When the receiving party picked up, the operator plugged the receiver's phone line into the caller's jack.

Dakota Central operators in Brookings, ca. 1920.

Highmore Telephone Exchange operator Anna Fehr, ca. 1910.

"Well, it was really quite a challenge because I would mainly take care of the board during the daytime and Harold would do the early morning and late evening. If we had calls at night you would crawl out of bed and answer the phone. It was really quite a demanding job."

Marjorie Nowick, Stockholm-Strandburg Telephone Co. owner, 2001



Life on The Line

He took off his gloves and blew on his fingers. This winter was one for the record books. With a sigh, he pulled on his gloves, strapped on the metal climbing hooks and started up the pole. The blizzard had knocked out lines for miles. People depended on those phones and they would get service back, frostbitten fingers or not. He heard that Zietlow swam across an icy river twice in 1897 to repair the Dakota Central line between Aberdeen and Redfield. The wind-whipped telephone pole was no picnic, but at least it wasn't a freezing river.

wire splicing wrench

cutters

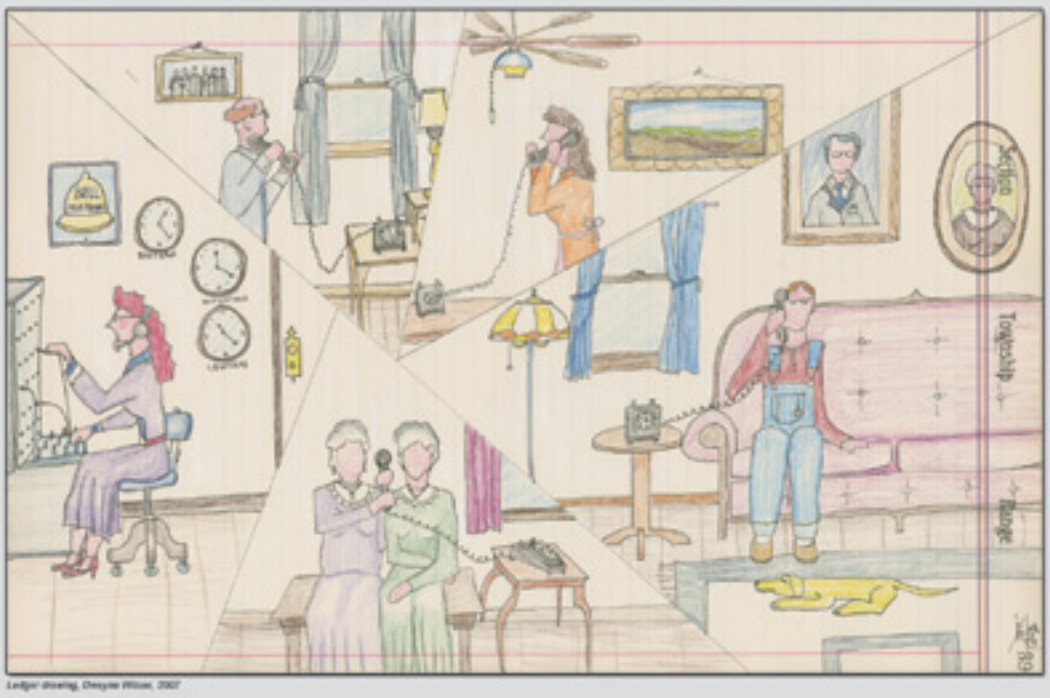
Linesmen faced unusual problems. Dove hunting season could be a real headache. As hunters shot at birds on telephone lines, BBs lodged in the wire and shorted out service. Finding and fixing the short was a tough job. Wet weather made the problem worse.

The City of Brookings bought the town's telephone system from Dakota Central Telephone in 1903. It was the first municipal telephone company in the United States. On left, Brookings linesmen, ca. 1925.

Unloading utility poles, ca. 1900.

Party Lines

Snapping beans for supper was no chore thanks to the party line. With the phone receiver in the big mixing bowl, the voices came through loud and clear. The phone company didn't like it when people listened in on calls. They said too many people on the line made it hard for the callers to hear each other. Maybe so, but it was comforting to hear the chatter. Just now, listening to the Anderson boy bragging up his football game to the Jones girl made her chuckle. Did the girl's mother know about this budding romance?



Up to twenty customers shared one line on a party line system. Each customer had their own ring, but everyone on the line heard each ring. Listening in on other people's calls or rubbering was common.

Early dial phones came in any color the customer wanted, as long as it was black.

Telephones were commonly found in the kitchen. Letcher, 1948.

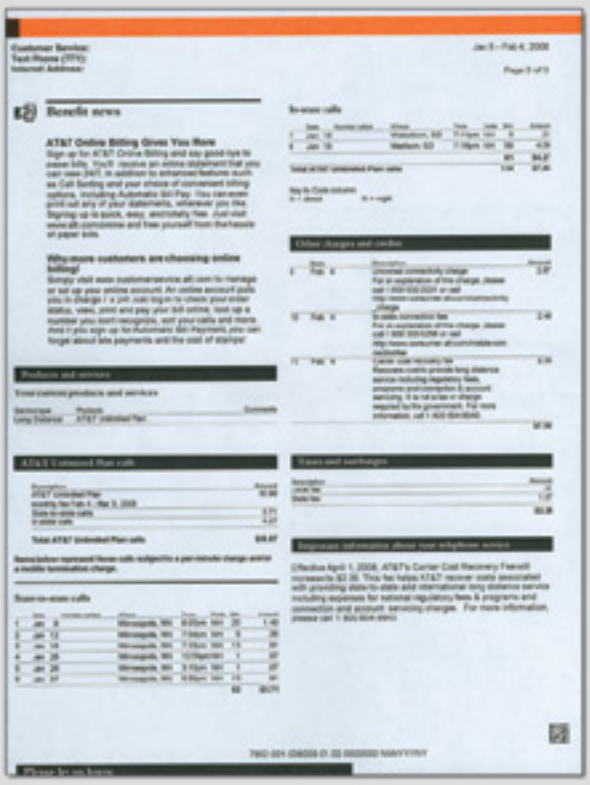
Broken Monopoly

AT&T or "Ma Bell" was a government-sanctioned monopoly since 1913. They promised universal phone service at reasonable cost in return for no competition. In the 1970s, things changed. New companies wanted into the communications market and AT&T's monopoly stood in their way. In 1984, the Justice Department forced AT&T to give up local telephone service and become a long-distance carrier only. Other companies also began offering long-distance.

Seven regional companies called "Baby Bells" took over AT&T's local phone service. Qwest serves South Dakota.

Telephone booths are getting hard to find in South Dakota.

The Telecommunications Act of 1996, authored by South Dakota Senator Larry Pressler, opened telephone, cable, broadcast, and internet markets to all companies.



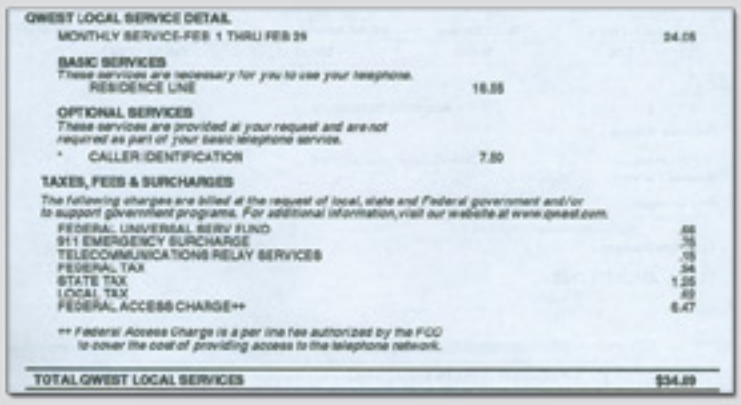
Benefit news

AT&T Online Billing Gives You More

Sign up for AT&T Online Billing and say good-bye to paper bills. You'll receive an online statement that you can view 24/7, in addition to enhanced features such as Call Sorting and your choice of convenient billing options, including Automatic Bill Pay. You can even print out any of your statements, wherever you like. Signing up is quick, easy, and totally free. Just visit www.att.com/online and free yourself from the hassle of paper bills.

Why more customers are choosing online billing!

Simply visit www.customerservice.att.com to manage or set up your online account. An online account puts you in charge! It's 24/7 web log-in to check your bills' status, view, print and pay your bill online, look up a number you don't recognize, sort your calls and more. And if you sign up for Automatic Bill Payment, you can forget about late payments and the cost of stamps!



QWEST LOCAL SERVICE DETAIL

MONTHLY SERVICE-FEB 1 THRU FEB 29	24.05
BASIC SERVICES	
These services are necessary for you to use your telephone.	
RESIDENCE LINE	16.05
OPTIONAL SERVICES	
These services are provided at your request and are not required as part of your basic telephone service.	
* CALLER IDENTIFICATION	7.50
TAXES, FEES & SURCHARGES	
The following charges are billed at the request of local, state and Federal government and/or to support government programs. For additional information, visit our website at www.qwest.com.	
FEDERAL UNIVERSAL SERV FUND	.66
911 EMERGENCY SURCHARGE	.75
TELECOMMUNICATIONS RELAY SERVICES	.09
FEDERAL TAX	.94
STATE TAX	1.05
LOCAL TAX	.93
FEDERAL ACCESS CHARGE**	6.47
** *Federal Access Charge is a per line fee authorized by the FCC to cover the cost of providing access to the telephone network.*	
TOTAL QWEST LOCAL SERVICES	**$34.09**

AT&T's breakup meant customers had to compare long-distance prices and options. Telephone bills showed a new mix of charges, fees, and taxes. Two bills became common – one for local service and one for long distance. Long-distance rates dropped from 25 to 16 cents per minute.

New Services

Cellular Phones

Cellular phones became popular in the 1980s. The phones transmit using radio waves in a "cell" or service area of about ten square miles. Within each cell, hundreds of conversations can take place at once. Cell towers transmit the radio waves. By 2008, over half of all Americans owned a cell phone.

9-1-1

When 9-1-1 became the nation's emergency number in 1999, green street signs appeared on rural roads. Dispatching rural emergency vehicles required a uniform address system. A location grid gave every country residence a specific street address.

Street signs in rural Brown County, 2008.

Emergency response vehicle, Onida, 2008.

Relay South Dakota

South Dakotans with speech or hearing disabilities can make telephone calls using the Relay South Dakota program. Calls can be made by contacting communication assistants on the phone, or by using teletypewriters (TTYs).

Technology brings new jobs. The Communication System Engineering Technologies program at the Mitchell Technical Institute teaches all aspects of communication technology.

Staying Connected

Telecommunications has changed remarkably. Overhead wires and party lines gave way to direct dial, buried cable, and cells phones. Phone service once meant AT&T, with some independent exchanges. Now customers can choose cable, cell phone, high-speed internet, and local telephone service from a wide variety of competitors.

"Just because you're in a rural area doesn't mean that you don't want all the things that are provided in the bigger metropolitan areas and we feel it's our responsibility to bring it to our people. The customers own the company, and they know what they want."

Richard Baye, Golden West Telecommunications board president, 2001

Technology never stands still. Who in the 1880s could have pictured a sleek, black telephone that did not need to be cranked? Would 1930s customers have imagined talking on a telephone the size of a deck of cards? One that is not even connected to the wall, plays movies, and takes pictures? What will the "phones" of the future be like?

This exhibition was sponsored by an anonymous donor.

South Dakota Communicates